

SACRAMENTO DISTRICT INSTRUCTIONS TO:

CEGS-02556

GENERAL NOTES

1. This guide specification is to be used in the preparation of contract specifications in accordance with ER 1110-345-720. It will not be made a part of a contract merely by reference; pertinent portions will be copied verbatim into the contract documents.
2. The capital letters in the right-hand margins indicate that there is a technical note pertaining to that portion of the guide specification. It is intended that the letters in the margins be deleted before typing the project specifications.
3. Where numbers, symbols, words, phrases, clauses, or sentences in this specification are enclosed in brackets [], a choice or modification must be made; delete inapplicable portion(s) carefully. Where blank spaces occur in sentences, insert the appropriate data. Where entire paragraphs are not applicable, they should be deleted completely.

TECHNICAL NOTES

- A. The section number should be inserted in the specification heading and prefixed to each page number in the project specifications.
- B. Paragraph 1: The listed designations for publications are those that were in effect when this guide specification was being prepared. These designations are updated when necessary by Notice, and references in project specifications need be no later than in the current Notice for this guide specification. To minimize the possibility of error, the letter suffixes, amendments, and dates indicating specific issues should be retained in paragraph 1, and omitted elsewhere in the project specifications.
- C. Paragraph 2.2: The minimum capacity depends on the size of job and time requirements; however, in no case should the plant capacity be less than 100 tons per hour.

- D. Paragraphs 5, 5.1, and 5.2: A tolerance of 0.03 foot will be specified when pavements in aircraft traffic areas such as airfield and heliport runways, taxiways and aprons are to be paved. A tolerance of 0.05 foot will be specified when pavements in nonaircraft traffic areas such as blast pads and stabilized shoulders are to be paved.

Designer will delete all requirements in Table I which are not applicable to the project.

For the construction of heavy-duty roads the following sentence will be added at the end of paragraph 5: "The grade of the completed surface shall not deviate more than 0.05 foot from the plan grade." In addition, paragraphs 5.1 and 5.2 and table I will be deleted and the following paragraphs will be inserted:

5.1 Intermediate Course Surface Smoothness: Upon the completion of the final rolling, the surface of the intermediate course shall be smooth and true to cross section. When a 12-foot straightedge is laid on the surface, the binder course shall not vary more than 1/4 inch from the straightedge.

5.2 Wearing Course Surface Smoothness: The wearing course upon completion of final rolling shall be smooth and true to grade and cross section. When a 12-foot straightedge is laid on the surface and parallel with the centerline, the surface shall not vary in excess of 1/8 inch from the straightedge.

- E. Paragraph 7.1.2: Satisfactory service record for an aggregate will be determined based on the aggregate's ability to resist polishing, raveling, stripping, and degradation under traffic and climatic conditions similar to those expected during its use. If performance data indicate that an aggregate is susceptible to one or more of the above-mentioned problems, that source of aggregate shall be rejected.
- F. Paragraph 9.1: The lot size can be specified on the basis of time (i.e., 4 hours, 1 day, etc.) or amount of production (i.e., 500 tons, 1000 tons, etc.). If the lot size is based on the amount of production, it should be selected to be approximately equal to the amount of asphalt mix produced in one day's operation. The lot size should not exceed 2000 tons of asphalt mix. When a lump-sum contract is used (total job does not exceed 1000 tons), the lot size becomes the total job; thus the penalty is assessed to the contract price.
- G. Paragraph 9.5: For heavy-duty roads the last sentence will be changed to read "..... lines of level along the centerline and each edge at

stations of 25 feet or less."

- H. Paragraphs 12 and 13: Paragraphs MEASUREMENT and PAYMENT will be deleted if the work is in one lump-sum contract price. Lump-sum contracts should not be used when the job exceeds 1000 tons.
- I. Paragraph 14.1: Appropriate gradations from TM 5-822-8 will be listed in Table V.
- J. Paragraphs 14.1.1.2 and 14.1.2: The values of percentage of loss will be based on knowledge of aggregates in the area that have been previously approved or that have a satisfactory service record in bituminous pavement construction for at least 5 years.
- K. Paragraph 14.1.3: In areas where there is a possibility that dune sand or one-size material may be used as mineral filler, the following gradation requirements will be inserted in the specifications to eliminate undesirable one-size materials.

Grain Size in mm	Percent Finer
0.05	70-100
0.02	35-65
0.005	10-22

Grain size shall be determined in accordance with ASTM D 422.

This specification will be inserted in paragraph APPLICABLE PUBLICATIONS if this alternate paragraph is used.

- L. Paragraph 14.2: The appropriate types and grades of bituminous materials for the pavement's use and climatic environment should be used. (Refer to TM 5-822-8/AFM 88-6, Chapters 2 and 9.) Military roads to be used by tanks will be designed for tire pressures of 200 psi and above. Requirements of ASTM D 946 should be used to specify penetration-graded asphalt cement, or ASTM D 3381 for viscosity-graded asphalt cement. The specification selected should be listed in proper numerical sequence in paragraph APPLICABLE PUBLICATIONS.
- M. Paragraph 15: The quantity of material specified should be adequate for determination of acceptability of source and determination of JMF. Adjust quantity of material if circumstances require more material. The procedures for determining the JMF to be used in the mixtures are described in MIL-STD-620 and TM 5-822-8/AFM 88-6, Chapters 2 and 9.

Proportioning of the aggregates for the JMF should be carefully determined because the gradations will be those on which the Contractor's tolerances will be applied. Application of these tolerances may cause the gradation to be outside the limits of the gradation in the specification, but this is acceptable. Only those columns in Tables VII and VIII showing test properties that are applicable to the project will be retained.

- N. Paragraph 15.2.2: The antistripping agent when added to the mix must be able to produce an index of retained stability of at least 75 percent.
- O. Paragraphs 16 and 23: The type of base course on which the bituminous intermediate and/or wearing courses are to be constructed will be inserted in the blanks. If project does not involve construction of bituminous courses on base course, delete paragraphs 16 and 23, and renumber all subsequent paragraphs accordingly.
- P. Paragraph 17: Appropriate statements covering the required conditioning of existing pavement will be inserted.
- Q. Paragraph 25: For the construction of heavy-duty roads the following sentence will be added at the end of paragraph 25: "Intermediate courses shall not be left uncovered by the surface course for more than 5 days, weather permitting."